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HOW TO AVOID STRIKES.

BY F. M. HOLLAND.

A STRIKE is a war; and like other wars it is sometimes necessary; but more often it is simply mischievous, as was the case not many months ago in Chicago. "In time of peace, prepare for war," is a good maxim for trades unions, as well as for nations, to a limited extent. Our own country is wise enough to devote her attention, while blessed with peace, to keeping up such friendly relations with her neighbors as make war impossible. Where employer and operative are friends, there is little danger of strikes. I remember myself how sadly the efficiency of Harvard College was impaired, forty years ago, by the prejudice of students against professors as natural enemies. When we came together for recitation, and found the door closed against us, our general delight was loudly expressed in the sounds by which a hen announces that she has laid an egg. Imitating geese would have been much more appropriate. Of course, the professor, as he called himself, of boxing did not get off from his engagements so easily. There is much less childishness in Cambridge now; the elective system enables a student to choose his own course of study; and this has helped him to see that the professors are really his friends. What is to be done to bring about a similar change of feeling in factories?

This has often been done by giving the entire control to the operatives; but they are apt to be unable to see the necessity of paying high enough salaries to secure officials with sufficient knowledge of business to buy the raw materials and sell the products to the best advantage. Co-operation usually means moral success and financial failure. It goes too far, but it is in the right direction.

Practical men are carrying on conciliatory plans, which may be grouped in two great classes. In the first place, operatives are given a chance to be heard before they strike. The general superintendent of the Lake Shore and Michigan Southern Company has published an article to remind railway officials that "most valuable information is to be gained by consulting those employees whose duties bring them in daily contact with the service performed." Questions about wages are often settled amicably in such con-

sultations. More serious differences of opinion have often been reconciled by boards of arbitration composed of employers and operatives in equal proportions. This plan has been found very successful in Boston, Chicago, and New York, as well as in some of the English factory towns. In France and Belgium many cases are prevented from coming before such boards by the action of standing committees, each of which contains a workman and an official from every local industry, and meets daily. The only objection to such tribunals is that the members meet as ambassadors from hostile armies, representing interests which they consider almost irreconcilable. They are too much like the knights who fought beneath a shield which one declared to be gold, and the other said was silver, because neither could see more than one side.

Then, second, the operative may be shown both sides of the shield, by various methods of letting him share the profits. The first experiment of much importance was made by a painter of houses in Paris, who called together forty-four of his best men on February 12, 1843, emptied out a great bag of coin on the table, and proceeded to pay each his share of the last year's gains. They received on the average more than \$50 each. This plan was still kept up by the firm at last accounts; and the extra expense had been fully repaid by the care which the men took of their paint and brushes, their constant industry, their willingness to work over hours, and their refusal to join in strikes. More than a hundred such cases may be found in Mr. Gilman's book on *Profit Sharing*, and the effect on the men may be judged from such stories as these. Baggage-smashing suddenly ceased on one of the French railways, for any man who handled it carelessly was called to account by his comrades, who said: "What are you about? You'll cut down our dividend." There had been great breakage of stones in a lithographic establishment; but as soon as the men began to share the profits, one was heard to say to another: "Hold on there; don't break any more stones; that one cost us eight francs." It was also found by the overseers that they could watch the work much more closely than formerly, without giving offence. Of course the plan has its defects; one is that the operatives usually insist on having full wages, in

addition to their share of the profits, and refuse to bear any part of an occasional loss. This refusal is natural enough so long as they have no voice in the management; but some such voice must be given before their sympathy with their employers can become complete.

A safe and practical way of doing this is encouraging operatives to hold shares of the company's stock. Shares have been given in proportion to the profits since 1870 by a Swiss manufacturer of music-boxes named Billon; and the workmen held more than \$15,000 invested in the capital of the company in 1888, when the dividend was six per cent. Another well-known case is that of Mr. Henry C. Briggs, manager of a coal-mine in England, where he had had so much trouble with the men that one of them said: "If Mr. Briggs only had horns on, he would be the very devil." In 1865 he promised to pay the men a yearly bonus in proportion to the amount, not only of the wages they might earn, but of the shares they might hold of the company's stock. Such shares were offered at a reduced rate, and were bought freely after the men had found out that they were dealt with honestly. The very man who had called Mr. Briggs a devil was soon defending him against charges of bad motives. Strikes ceased; when part of the miners asked for more wages, the rest of the men were asked whether the demand were just; and they decided unanimously that it was not. In 1869 one of the men who held shares was chosen director by the other holders, who then numbered one seventh of all the adults employed. The dividends rose a few years later to fifteen per cent., on account partly of the general condition of business, and partly of the unusual care taken by the miners to bring in the coal free from dirt or stones, and in large lumps. Wages, too, were increased, but the market soon changed for the worse. A reduction of wages, together with the arbitrary conduct of the managers, brought on a strike. The arbitrators decided against the operatives, and the other holders of stock voted in 1875, that the new plan be given up. It seems to have been partly the fault of the operatives, and partly of the manager, that success was not permanent. It was sufficiently so in the cases of Godin in Paris and Cassell in London, to enable these establishments to become co-operative. This might safely be done after the laborers had gradually become aware of what their relations really were with managers and capitalists.

Much has been done to produce mutual friendliness by the operatives becoming stock-holders, by their receiving a share of the profits, and by their meeting frequently in consultation with the managers. It seems to me that a good way to avoid strikes would be to combine all these plans into one system some-

what as follows. It is not because all the details are essential that I will give them freely, but because I wish the reader to understand the general features of my plan.

The first step, I think, would be for the employer to announce that, say six months hence, he would give the operatives a fixed percentage of the profits, letting the bonus for each individual correspond to the amount of wages during that time. This bonus should at first be paid in cash, partly to please the operatives and partly to prevent the company from committing itself to them inextricably before they were willing to meet half way. As soon, however, as their labor should improve enough in value to make up for the extra expense, the most intelligent and influential of the operatives, with some leading representatives of the trades unions, should be invited by the managers to help them draw up a permanent plan.

The next bonus would accordingly be paid partly or wholly in scrip, receivable by the company for shares of a special stock which should be redeemable at par when presented, after due notice, by holders then or formerly in the employ of the company, or by their heirs. A dividend in proportion to profits should be guaranteed; and shares of this stock, as well as of the common stock, should always be for sale on the instalment plan. In short, the operatives are to get a share of the profits, not only as a dividend on their stock but as a bonus on wages; and this will give them a personal interest in the company's prosperity. They will not say to a new-comer, "We can't afford to have your machine running so fast as that. The boss will be hurrying us up next. The longer it takes to do the job, the longer the work holds out. I guess the company's rich enough to stand it."

It seems to me further necessary for brotherly feeling between employer and operatives, that those of the latter who hold stock should have some voice in the management. Concession of this right will keep them conscious that they are capitalists, and encourage them to purchase largely. I do not insist on details; but, I think it simply just to have the stock-holders in the factory choose one of themselves as director, and more when their number of shares increases sufficiently. It would also be well to have these operatives decide who of them shall be members, in company with an equal number of managers and superintendants, of an advisory council, which is to meet regularly to decide about wages, regulations, holidays, etc., hear complaints, and deal with other questions likely to give occasion for strikes. The council should also determine what regard ought to be paid to length of service, number of days at work, good behavior, or other circumstances, in the annual distribution of profits.

It might be for the interest of all parties to agree that no operatives enter the council, except those who own a specified amount of stock and have been for a fixed time in the factory; and the representation should be broad enough to correspond to all differences in sex, nationality, party, and relation to the unions; but otherwise there should be perfect freedom of choice by the Australian ballot. It might also be well for one third of the representatives of the operatives to go out of office annually. I insist only on the importance of some representation among the managers for the stock held in the factory. It is hard to say whether employer or operative is likely to learn more in such friendly intercourse about their common interests; and it is certain that they will find every encouragement to remain friends.

The minor arrangements must at first be made rather cautiously and tentatively; and some changes may be necessary before the plan assume a form mutually satisfactory. As soon as this is done, there should be no possibility of alteration, even in details, except after long deliberation and with general consent. It must be understood from the first that there is to be no desertion of the two fundamental principles, namely annual distribution of scrip for stock among the operatives, in proportion to profits, and permanent share in management for those who choose to hold stock.

THE BABYLONIAN EXILE.

BY PROF. C. H. CORNILL.

THE Assyrians were the first people to make use of the exile as a means of pacifying rebellious tribes. Whenever they chanced to come upon an especially strong nationality, which offered determined opposition in its struggle for existence and was not willing to be swept away without resistance by the advancing avalanche, the entire nation was expelled from its land and dragged into the heart of the Assyrian empire, either directly into Assyria itself, or into regions which had been denationalised for generations and already been made Assyrian, whilst the depopulated country itself was filled with Assyrian colonists. The Assyrians had already noticed that the strong roots of the power of an individual as well as of a nation lie in its native soil. Home and country mutually determine each other and form an inseparable union. In those days they did so more than now, for then religion also was an integral part of the nation, and religion, too, was indissolubly associated with the soil. A nation's country was the home and dwelling-place of its national Deity; to be torn away from one's native soil was equivalent to being torn away from Him, and thus was destroyed the strongest bond and the truest source of nationality.

The object of the transportation was attained. Such members of the ten tribes of Israel as were carried away in the year 722 have disappeared without a trace, and if that branch of the Semites commonly known as the Aramaic has been unable to assume a distinct ethnographical type in history, the fact may be ascribed to the five hundred years' dominion of the Assyrians in those regions, who from the earliest times systematically eradicated the nationalities of conquered countries.

In their national sentiments Israel did not differ from the other nations of antiquity. Every country except Palestine was unclean, and to hold there the service of God was impossible. For a man like the prophet Hosea, who did not suffer himself to be governed by prejudices, or allow his better judgment to be impaired, it was quite a matter of course that so soon as the people left the soil of Palestine, all service of God should cease of itself, and this is for him one of the deepest terrors of the threatened exile. He said:

"They shall not dwell in the Lord's land, but Ephraim shall return to Egypt and eat unclean things in Assyria. They shall not offer wine-offerings to the Lord, neither shall they prepare burnt-offerings for Him; their bread shall be unto them as the bread of mourners; all that eat thereof shall be polluted: for this bread serves to still their hunger, and none of it shall come into the house of the Lord. What will ye do in the solemn day and in the day of the feast of the Lord?"

Such also was the thought one hundred and fifty years later, when Judah was carried into exile. The Babylonian government would have had no objection to the exiles building for themselves the altars and temples of their God in Mesopotamia—but it never entered the heads of the Jews to build a temple to God on the Euphrates, after that His own house on Mount Zion had been destroyed. Even the most religious man would have seen in this an insult, a mockery of the God of Israel: better not sacrifice at all than unclean things on unclean ground. And this condition of things was to last a long time. Jeremiah had distinctly named seventy years as the period during which God would grant to the Chaldeans dominion, and had repeatedly and urgently warned the exiles to make arrangements for a long sojourn in the strange land. How, now, did Israel pass this period of probation?

The consequences of the Babylonian exile have been momentous in every way; the exile in Babylon quite transformed Israel and its religion; it created what is known in religious history as Judaism, in contradistinction to Israelitism. To have been the first to clearly recognise that the Judaism of post-exilic times, although the organic product of the Israelitism of the exilic period, was yet something totally new and spe-

cifically different from it, is the great and imperishable service of De Wette, who was indeed the first to have any understanding at all of the religious history of the Old Testament in its real significance and tendencies. That the exile into Babylon exercised this stupendous transformative influence, was the natural result of the circumstances and of the logic of facts.

A later writer of the Old Testament, whose name and period are unknown to us, he who gave to the Book of Amos the conciliatory conclusion already mentioned, compares the Babylonian captivity to a sieve, in which the house of Israel is sifted, through which all the chaff and dust passes, but not the least grain falls to the earth. This comparison is excellent and characterises the situation with a distinctness and sharpness that could not be improved upon.

The Babylonian exile did indeed bring about a separation of the religious from the irreligious section of the people, of the followers of the prophetic religion from the followers of the ancient popular religion. In the fall of Judah and the destruction of Jerusalem and the temple, the prophetic religion won a complete victory over the old religion of the people, and the latter lost every possibility of further existence. The ancient Deity of the nation vanished in the smoke sent up by the conflagration of the temple of Solomon. He was vanquished and destroyed by the gods of Nebuchadnezzar. His want of power had been plainly proved by the destruction of His people and of His house, and He himself lay buried beneath their ruins.

The moral influence of the Babylonian captivity and its attendant features must also be taken into account. Bowed down by the dread blows of fate, all confidence lost in themselves and their God, the Jews came, a despised and oppressed remnant, to Babylon, which was at that time in the zenith of its power and magnificence. What an overwhelming effect must the undreamt-of grandeur of their new surroundings have made upon them! Their once so loved and admired Jerusalem, how poor it must have appeared to them when compared with the metropolis of Babylon with its gigantic buildings, its art, its luxury! The temple of Solomon, at one time their pride and glory, was it not but a miserable village-church when likened to the wondrous edifice raised to the worship of the Babylonian God! As the great unknown writer towards the end of the captivity expresses it, Israel was here but a worm and Jacob a maggot. How irresistible the temptation must have been: "Away with the old trash, let us bow down and acknowledge this new and powerful deity!"

Moreover, it was a decided personal advantage for a Jew to renounce his nationality and to become a Babylonian. We have in the literary productions of the time woful complaints concerning the brutal mock-

ery and heartless derision to which the poor Jews were subjected in exile, nay more, they were subject to ill-treatment and personal violence. An extraordinary strength of character was necessary to remain steadfast and true; only really earnest and convinced religious natures could resist such temptations. And thus the natural consequences of the conditions were that the half-hearted and lukewarm, the weak and those wanting in character, the worldly-minded, who thought only of personal advantage and honor, broke away, and that a refining process took place within Israel which left nothing remaining but the sacred remnant hoped for by Isaiah. Even on this remnant, which was really composed of the best and the noblest elements of the people, the Babylonian captivity had a profound effect. The religion of Israel, in fact, was destined to undergo a deep change.

Deuteronomy had already effected a separation between the State and the Church, between the national and the religious life. Of course, at the outset the reform had to reckon with these as concrete powers and weighty factors, but it is evident they stood in its way and formed serious obstacles to the realisation of its final aims, which were of a purely ecclesiastical character. But now destiny had removed these hindrances. The State was destroyed, the national life extirpated, nothing but the ecclesiastical element remained. The hard logic of facts itself had drawn the conclusions of Deuteronomy, and afforded them the freest play for their growth and operation. Judah as a nation was destroyed by the Babylonian captivity as completely as Israel was by the Assyrian, but it was transformed into Judaism. The State became a Church; a nation was converted into a congregation. And this Judah, which had now become Judaism, had a universal mission to fulfil which was without parallel. The future and entire further development of religion depended upon it.

EVOLUTION AND IDEALISM.

BY ELLIS THURTELL.

HERBERT SPENCER, in his *Principles of Psychology*, has insisted that "should the idealist be right, the doctrine of evolution would be a dream." To this the late Prof. T. H. Green—representing the theistic Neo-Hegelians—demurred. And with him the non-theistic Neo-Hegelians, such as Mr. Belfort Bax and a newly arisen writer, Mr. E. Douglas Fawcett, are in complete agreement. The latter in his recent very suggestive *Riddle of the Universe* has said: "The acceptance of evolution as natural process in time, and as such prior to individual consciousness, is not only consistent with idealism, but constitutes the idealist innovation of the nature-philosophy of Schelling."

The view of evolution indicated here does certainly

coincide with that set forth by Herbert Spencer in his essay upon Professor Green. Herein he writes: "There is necessarily implied by this theory of evolution a mode of being independent of and antecedent to the mode of being we now call consciousness." But he continues: "Consequently this theory must be a dream if either ideas are the only existences, or if, as Professor Green appears to think, the object exists only by correlation with the subject."

And Mr. Fawcett meets the Spencerian demurrer in this way: That the world is by no means a mere appendage to the "mind." Hegelian idealism, he declares, "does not deny that objects and ideas, or mental states, are different." It adds, however, that the former are not things outside the system of experience. Furthermore, Mr. Fawcett asserts that we must not confuse the *psychological* with the *metaphysical* distinction between world and mind. "Though mental and object states differ much, they agree in being states of my experience." And as to Spencer's account of our belief in independent objectivity, he writes: "Accepted *psychologically*, as a *history of the genesis of the belief*, it is, as will be obvious, fraught with great value—the ancestral element being a conspicuously excellent innovation. But construed *metaphysically* as a proof of independent objective agencies it is misleading and fallacious." Spencer's vindication of realism is allowed to show "why we must *think* the reality of something out of consciousness, but it does not and cannot establish the something as a fact." And Mr. Fawcett finally insists, "that to maintain *independent* objectivity *beyond* experience, on the ground of cohesion in consciousness generated by experience, is to confuse psychology and metaphysic."

We may indeed say that metaphysic is by all Neo-Hegelians accredited with validity, as a source of philosophic inspiration far higher than that possessed by pure psychology. But how if metaphysic should be held to be *not superior but subservient to psychology*? *The Riddle of the Universe* truly is described as "an attempt to determine the first principles of metaphysic, considered as an inquiry into the conditions and import of consciousness." But Fleming's *Vocabulary of Philosophy* (4th ed.) defines psychology as "a theory of the nature and powers of the mind, based upon an analysis and interpretation of the facts of consciousness." While metaphysic is declared to be "that department of mental philosophy which is concerned with speculative problems *transcending* those belonging to the nature and relation of the facts of consciousness." Furthermore, it is well known that this is the sense in which Kant used the word when he announced that a metaphysic—an ontological, as distinct from an experiential, theory of the universe—was valueless, if not *rationally* unattainable.

In point of fact, the problem of "the conditions and import of consciousness" belongs essentially to psychology. While as to metaphysic, George Henry Lewes has, I think, satisfactorily settled its place in philosophy after a fashion somewhat different to Mr. Fawcett's. Metaphysic, Lewes has well shown (in his *Problems of Life and Mind*, Vol. I) to be concerned with "the disengagement of certain most general principles, such as cause, force, life, mind, etc., from the sciences which usually imply these principles [the science of psychology, in the case of 'mind']; and the exposition of their constituent elements—the *facts*, sensible and logical, which these principles involve; and the relations of these principles. . . . Its place as a special discipline," Lewes proceeds, "is that of an objective logic. Its method is that of dealing exclusively with the known functions of unknown quantities, and at every stage of inquiry separating the empirical from the metempirical data." And further on he very properly speaks of "the great *psychological* problems of the limitations of knowledge, and the principles of certitude." The important word is italicised by me.

George Henry Lewes has, indeed, interfered to save *intellectual* metaphysic from the annihilation threatened it by the Kantian *Critique*, which left only a metaphysic of morals standing firm. But he has done so upon the clear and positive understanding that it is metaphysic which is to be subservient to science, not—as in pre-Kantian days and among many idealists even now—science to metaphysic. And as to realism and idealism Lewes has declared that according to his system "idealism is vindicated in all that it has of truth, and realism is rescued."

It is certainly matter for mutual congratulations among philosophers of different schools that our most newly-reformed and advancing idealists are willing to stand shoulder to shoulder with our present-day renovated and progressive realists in defence of a consistently evolutionary scheme of thought. Beside this recent and great agreement old controversies between idealist and realist seem trivial. Moreover, these very controversies under the treatment of Lewesian Spencerians on the one hand and Schopenhauerian Hegelians on the other, are steadily tending towards compromise. While under the adequately developed monism for the consummation of which all truly *naturalistic* thinkers are now working, they must inevitably collapse. Yet for all that we do still certainly hear somewhat too much about the competency of purely idealist dialectic and metaphysic in the settlement of strictly *psychological* topics of dispute. A last year's republication of essays, entitled *Darwin and Hegel with Other Philosophical Studies*, by Mr. (now Professor) D. G. Ritchie, affords farther proof of this.

In this book Professor Ritchie writes: "Lewes and Spencer consider it the special triumph of their theory of heredity as a factor in knowledge, that they are able to reconcile the theories of the *a priori* and *a posteriori* schools. This opinion seems to me a complete *ignoratio elenchi*. Kant's critical theory is not psychological but logical. The name *a priori* is of course most unfortunate: it suggests priority in time. What Kant urges is that the possibility of science, or in fact of anything that we can call 'knowledge,' implies certain *necessary* elements. Hume had already shown that sense-experience can never give necessity. Therefore, argues Kant, this necessity comes from the very nature of thought."

Well, I make bold to maintain that Lewes and Spencer are right, and that Professor Ritchie is wrong. Kant did not *only* urge that all knowledge implies necessary elements. He went on to insist that this implication of necessity (and universality) further implied a non-experiential origin of knowledge. And it is at this point that the consistent evolutionist must join issue with him. The question, as Lewes says, "is not whether *a priori* elements can be detected in knowledge, but whether those elements were or were not originally formed out of ancestral sensible experiences." And inasmuch as evolutionary psychology clearly shows that these elements were formed out of such ancestral experience, the Kantian theory falls. There *is* an *a priori* element of knowledge. But this element, instead of being independent of experience, as Kant supposed, is actually the product of experience—the experience not indeed of the individual, but of the race. As to how experience in any form is possible—that is no doubt a mystery. But it is only part of the general mystery of life, a mystery that remains the same for any hitherto existing theory of cosmic order.

Professor Ritchie, indeed, admits (in his profound and subtle essay entitled "Darwin and Hegel") that "all attempts on the part of 'intuitionists' to meet evolutionists on questions of 'origins' are doomed to failure." And the essay concludes with a description of the idealist's position which certainly seems too moderate and reasonable to justify the peremptory lesson its author has elsewhere attempted to teach the followers of Lewes and Herbert Spencer. The idealist, Professor Ritchie, says, "only insists that, after we have had as complete a history as can be given of how things have come to be what they are, we are justified in looking back from our vantage ground and seeing in the past evolution the gradual 'unrolling' of the meaning that we only fully understand at the end of the process." No evolutionists, however uncompromising, need refuse assent to this. And if this is all the acute Neo-Kantian and Neo-Hegelian critics of Spen-

cerian evolutionism mean there can be no inseparable bar to that "idealistic" development of the Spencerian philosophy for which some of our most progressive and suggestive young thinkers appear to be so eagerly upon the watch—toward which indeed some of them have already contributed important work.

HEREDITY AND THE A PRIORI.

MR. ELLIS THURTELL defends the compatibility of evolutionism and idealism, and there can be no question about it that evolution is possible in a world of pure ideas as much as in a material world. That philosophers of different schools stand shoulder to shoulder in defence of an evolutionary scheme of thought seems to me less a matter for mutual congratulations among philosophers than an evidence of the recognition which the doctrine of evolution receives. It is natural that the rising sun has many worshippers, and we dare say that at the present juncture, any world view, be it philosophical or religious, which would be found in an irreconcilable conflict with the theory of evolution, appears to be doomed.

Although we agree with Mr. Thurtell as to the compatibility of evolutionism and idealism, we must object to his condemnation of Professor Ritchie's criticism of Lewes's and Spencer's reconciliation of the *a priori* and *a posteriori* schools. Mr. Thurtell says "I make bold to maintain that Lewes and Spencer are right and that Professor Ritchie is wrong"; but, as a matter of fact, we find that he himself is guilty of the same *ignoratio elenchi* of which Mr. Ritchie accuses Spencer and Lewes.

When Kant speaks of *necessity* he does not mean *certitude*. An instinctive assurance may be inherited; but to explain the universality and necessity of mathematics by heredity (as Spencer and Lewes propose) is simply an evidence of their miscomprehension of the problem.

We explain by heredity the structures of organised beings. By heredity the organ of seizing has been developed in the elephant's trunk, in man's hand, in the monkey's tail, in the lobster's claws. In a similar way tendencies and also dispositions of forming ideas may, by heredity, become firmly implanted in the minds of thinking beings. We have hereditary prejudices, religious as well as political, social, and otherwise. Talents, proclivities, and instincts of all kinds are also inherited. Artistic genius is explainable by heredity. But these products of evolutionary heredity are by no means intrinsically necessary. Under other conditions they would have developed in another way. And what has the idea of inheritance to do with the problem, Why is the equation $1 + 1 = 2$ intrinsically necessary? Why does it hold good always and under all conditions, without any exception?

The proposition is not why is man in possession of a faculty quickly to grasp and apply the proposition of one plus one being two, or why does he easily acquire arithmetic and mathematics? This question I freely grant may be answered by the Lewes-Spencer theory of heredity. Kant's problem is, Why must all the formal theorems of arithmetic, mathematics, logic, and purely natural science (as Kant calls the idea of causation and its corollaries) be conceived as universal and intrinsically necessary truths, and how is it that this assurance never fails?

If the intrinsic necessity of "twice two being four" were indeed a product of heredity there would be a more or less of it, but any one who understands the problem sees at once that mathematical truths either are or are not necessary. There is no middle ground. These truths either are or are not products of sense-experience, whether it be of the race or of the individual, but the fact is that no amount of sense-experience can ever establish a single formal statement that would be universal as well as necessary.

We have to add here that Mr. Thurtell does not appear to know that Kant's usage of the term "experience" is limited to "sense-experience," involving the exclusion of formal thought. Professor Ritchie seems to be well aware of the dubious meaning of the term, for in the passage quoted from him by Mr. Ellis Thurtell, Professor Ritchie expressly speaks of "sense-experience" and not experience in general.

In brief, the Kantian problem of intrinsically necessary truths cannot be disposed of in Mr. Spencer's easy way. The problem lies deeper and has not been antiquated by the acceptance of the doctrine of evolution.¹

THE DIVINITY OF SCIENCE.

BY CHARLES VON FALCK.

The sun is setting, and his rays, like threads of gold
Are tonching earth, connecting with the higher region
The world of selfish toil, disturbance, sorrow, woe,
Where purity is rare—still rarer, true religion.

¹ A reconciliation of the *a priori* and *a posteriori* schools is proposed in the *Primer of Philosophy*, in which attention is called to the loose usage of the term "experience," which sometimes includes, sometimes excludes, the "formal" element of knowledge. Experience in the former sense is the total effect that events have upon the sentience of a living being; it constitutes the source of all knowledge. Experience in the latter sense is limited to the sense-element of experience in the former sense.

Reason is not *a priori* to experience in the wider application of the term, although we grant that it is independent of the sensory elements of experience. No amount of isolated sense-impressions can produce reason, but the relations that obtain in sensations, the formal features of experience are the elements from which formal thought naturally originates, and reason is nothing but systematised formal thought.

Mathematics, arithmetic, and logic are indeed, as Kant claims, purely mental constructions, but their elementary building material, purely formal ideas, such as the units of counting, geometrical space, logical relations, etc., far from being latent in the mind and prior to experience, have been derived from experience by abstraction.

Kant's solution is, in our opinion, untenable, but Lewes and Spencer, far from succeeding better than Kant, failed even to understand the problem itself. For further details see the *Primer of Philosophy*, "The Methods of Philosophy Derived from Experience," pp. 51-136.

And in disgust the sun, the mighty source of light
Sinks into ocean's waves, and darkness now envelops
The earth, that has no light, except from higher source,
On which all life depends—by which it grows, develops.

But as all things on earth, that we can comprehend
Subserve God's grandest law, the stern law of all nature,
Thus must the sun return—throw light on wrong and right,
And do its sacred work through all eternal future.

And in the world of mind, there also shines a sun;
Grand, not in outer form, but in its holy mission;
The sun of science which, with beneficial rays
Sheds light on human faults, and wrongs, and superstition.

Sheds light upon the path of universal truth,
And shows the ways and means for human minds' progression,
And with its force divine—with slow but constant growth
It takes of mankind's mind its fore-ordained possession.

It has resolved the creeds, these prisons of man's mind,
Into the mighty folds of healthful revolution;
Not by the sword or blood, but by the might of words,
Disclosing to the world the law of evolution.

The reason you may ask, why science has subdued
The human fancy—earth and ocean's mighty brine?
The answer is, it walks the path of God Himself
Not blinded by a faith. It knows—it is divine.

BOOK NOTICES.

S. C. Griggs & Company of Chicago publish a work on the Opium Habit, entitled *Doctor Judas*, by Wm. Rosser Cobbe, a Chicago journalist who was a victim of the habit for nine years and has treated the subject in all its physical and moral bearings. (Pages, 320. Price, \$1.50.)

The New York State Reformatory at Elmira publishes Year Books which give full reports of the management and work of the Reformatory, and are interesting as being entirely the product of youthful prisoners' labor. The photographs of criminal skulls, footprints, and the tables of statistics will be valuable to criminologists.

The American Commonwealth, by the Rt. Hon. James Bryce (Macmillan & Co., two volumes, \$4.00 net), has recently appeared in its third edition, completely revised throughout and with a few additional chapters. "All difficult and controverted points have been reconsidered, the constitutional changes in the States since 1889 have been (so far as possible) noted, and the figures of population have been corrected by the census returns of 1890, those relating to education by the latest available Report of the Bureau of Education." The four new chapters discuss: "The Tammany Ring in New York City," "The Present and Future of the Negro," "The South Since the War," and "The Home of the Nation." Mr. Bryce enters quite fully into recent politics, takes note of the issues of the last presidential campaign, the effects of public opinion on such questions as the "Force Bill," the "Tariff," the "Silver Question," in deciding the elections, the relations of the political parties to each of these topics, discusses at some length the growth of new parties, and comments on the Hawaiian troubles, new aspects of the agitation for female suffrage, etc. There is scarcely a question now commanding the interest of the nation which is not touched upon, and much wholesome, courageous discussion of the recent abuses of our political system is introduced. Praise of Mr. Bryce's work, which now takes rank with the philo-

sophic treatise of De Toqueville as a standard manual of reference on American affairs, would be superfluous. The work is an unbiassed and high-minded critical exposition of the main features of American institutions by a man of erudition and culture, and latterly with a wide and successful experience in practical political affairs, and it is a good sign of the tendency of modern American opinion that his book is so widely read and circulated in the United States. It is one which no thoughtful American should leave unread.

In *Socialismus und moderne Wissenschaft (Darwin-Spencer-Marx)*, by Prof. Enrico Ferri, we have a German translation of an eloquent and brilliant exposition of the trend of modern biological and social science as initiated by Darwin and Spencer and culminating in the socialistic theories of the celebrated German writer, Carl Marx. The doctrine of Carl Marx, Professor Ferri contends, is the only socialistic theory which possesses scientific method and importance, and which unanimously guides and inspires the socialistic parties of the whole world. In his opinion, it is nothing more nor less than the practical and natural fruitage in the province of sociology of that scientific revolution which began with the renaissance of modern science in Galileo and has received its highest modern perfection in the works of Darwin and Spencer. The last-mentioned authors hesitated to draw the sociological conclusions which logically flowed from their scientific premises, but left that work to Marx, who with them forms the brilliant stellar triad of modern scientific thought. In socialism, as reared upon the scientific foundations of Marx, the world shall surely find, our author thinks, a panacea for the evils which now threaten what is noblest and best in its life. It cannot be denied that the little book is written with fervor and understanding. Professor Ferri is a member of the Italian Chamber of Deputies, and the translation of his work has been made by Dr. Hans Kurella, well known as the German translator of Lombroso and of other standard criminological works. (Leipsic: Georg H. Wigand. 1895. Pages, 169. Price, M. 1.50.)

NOTES.

Dr. Lewis G. Janes informs us that a conference of evolutionists is to take place on the grounds of the Greenacre Inn, Eliot, Maine, on July 6 to 13, which is to afford an opportunity for consultation and interchange of views among the friends of scientific thought. Among the speakers are Prof. E. D. Cope of Philadelphia, Prof. Edward S. Morse, Peabody Institute, Salem, Mass., the Rev. E. P. Powell, Clinton, N. Y., Miss Mary Proctor, the daughter of Richard Proctor, the Rev. James T. Bixby, Prof. John Fiske, and Dr. Janes. Herbert Spencer has sent a paper which will be read on the first day of the conference.

Prof. Ernst Mach, who needs no introduction to the readers of *The Open Court* and *The Monist*, and who is now well known to the English-reading public at large by his profound and attractive works on scientific subjects, has resigned the chair of Physics in the University of Prague in order to accept a professorship of the History and Theory of Inductive Science in the University of Vienna. (The recent notices in the press which announced his acceptance were premature, and partly wrong.) Professor Mach is to be congratulated on this call to a wider scene of activity. It is significant and rare that a man whose life has been devoted to the practical furtherance of science and who has actually watched and helped its growth, should be selected to expound and elucidate its history and principles of procedure. Both the scientific and philosophical world may expect fruitful and beneficent results from Professor Mach's activity in his new vocation.

Mr. K. Ohara of Otsu, Omi, Japan, 22 Midguagecho, writes in a letter just received that he finds many articles in *The Monist* and in *The Open Court* on psychology and philosophy to be in strict accordance with the teachings of Buddhism, and he promises in time to point out these coincidences in his periodical, the *Shi-Do-K'wai-Ko-Koku*, which is on our exchange list. He has translated in a recent number the "Triangular Debate on Christian Missions" which appeared in the January number of *The Monist*, and states that his translation has aroused wide interest in Japan and has been republished by several religious and scientific journals. The present number of his periodical contains besides an editorial on "The Relative Value of Names," by K. Ohara, two sermons, one on "The Three Virtues," by the Rev. S. Yemura, and one on "Morality and War," by the Rev. K. Yo-Shi-Tami, a scriptural writing on the birth of Buddha, and miscellaneous notes on the lives of eminent Buddhists and Buddhist pagodas in Japan. Besides these religious articles the number contains a contribution by a Japanese scholar on "The Invention of Pen and Paper."

Mr. Ohara sends us by the same mail a booklet written in English called *The War Reader* published by the Keigyosha, Tokio. It contains a number of anecdotes and newspaper accounts of the late war and also a poem by Edwin Arnold. It is interesting to notice the attitude of Buddhist priests. The Chief Abbot of the Hongwan Temple, being prevented by his home duties from joining the warriors of his country, wrote a letter in which the following passage strikes us as characteristic: "Soldiers and sailors are bound to apply themselves to the grave responsibility of conducting either offensive or defensive operations and to prove themselves pillars of the State. And yet, unless they feel confident of their destiny in the life to come they may quail amidst smoke and flying bullets, and may thus fail to bring victory to the army of Japan. It is therefore of the utmost importance for the Japanese soldiers on active service to have no fear about their fate beyond the grave. Now for the inheritance of future glory Buddha underwent a prolonged religious discipline and finally attained Nirvana, and, all who place an implicit faith in the teachings of Buddha and pass out of this earthly existence without entertaining any sceptical doubts of the attainment of a glorious future life, will be rewarded at once with unbounded felicity in another world."

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